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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/697,087  | 10/31/2003  | Koji Ota             | 117650              | 9732             |
| 25944   | 7590        | 06/18/2004           | EXAMINER            |                  |
| OLIFF & BERRIDGE, PLC<br>P.O. BOX 19928<br>ALEXANDRIA, VA 22320 |             |                      |                     | GUSHI, ROSS N    |
|   |             | ART UNIT             |                     | PAPER NUMBER     |
|   |             |                      |                     | 2833             |

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/697,087             | OTA ET AL.          |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Ross N. Gushi          | 2833                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-12 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/24/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the term "arc resistant" is indefinite in that it is in inherently a relative term or a term whose meaning cannot be clearly ascertained. First, it is not clear whether applicant means the term "arc resistant" to mean that arcing is prevented or to mean that arcing does not damage the terminal. Whether arcing occurs between two terminals is affected by various factors such as the voltage across the terminals, so whether the any two terminals are "arc resistant" is arguable and indefinite. Also, terminals may be damaged in varying degrees by arcing, so whether a terminal is "arc resistant" in being resistant to damage from arcing is also a relative inquiry. The term "arc resistant" is given little weight.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in —

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a);

Claims 5, 7, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayashi et al. ("Hayashi").

Per claims 5, 9, Hayashi discloses a terminal pair including an final contact portion outer surface 5 made of a material mainly containing titanium.

Per claims 7, 11, the base material 3 is copper alloy (col. 1, line 61).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellamy et al. ("Bellamy") in view of Hayashi et al. ("Hayashi"). Regarding claims 1, Bellamy discloses an arc resistant terminal including a final contact portion 13 made of arc resistant material. Bellamy states that: "Such a resistance layer can be provided by precious metal thick-films, which are commercially available in the art. The preferred embodiment of the invention utilizes thick-film palladium gold . . ." Bellamy Col. 3, lines 35-45. Hayashi discloses a coating material 5 consisting mainly of titanium. Hayashi Col. 1, line 68. At the time of the invention, it would have been obvious to

replace the Palladium resistance layer in Bellamy with other known precious metal layers, such as a titanium material as suggested by Hayashi. The suggestion or motivation for doing so would have been to use a material that is durable, non-rusting and has excellent abrasion resistance as taught in Hayashi (col. 3, lines 5-10). Furthermore, the selection of a known material based on its suitability for its intended purpose would have been obvious. Sinclair & Carroll Col. V. Interchemical Corp., 65 USPQ 297 (1945); In re Leshin, 227 F.2d 197 (CCPA 1960).

Regarding claim 2, regarding the particular content percentage of Titanium, to the extent that Hayashi does not specify exact percentages, at the time of the invention, workable percentages of the would have been a matter of routine experimentation. In re Antonie, 559 F.2d 618 (CCPA 1977); See also In re Aller, 105 USPQ 233 (CCPA 1955)(Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

Per claim 3, the Bellamy base material is copper.

Regarding claim 4, Bellamy the base pin 11 contacts terminal 19 upon complete insertion.

Claims 6 and 10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi as in claims 5 and 9. Regarding claims 6 and 10, regarding the particular content percentage of Titanium, to the extent that Hayashi does not specify exact percentages, at the time of the invention, workable percentages of the would have been a matter of routine experimentation. In re Antonie, 559 F.2d 618 (CCPA 1977); See

also In re Aller, 105 USPQ 233 (CCPA 1955)(Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi as in claims 7 and 9 in view of Bellamy as discussed regarding claims 1-4.

Hayashi does not indicate that the base material is in contact with the other material. Bellamy discloses that upon complete mating, the base material is in contact with the mating terminal. At the time of the invention, it would have been obvious to modify the Hayashi coating to allow the base materials to contact each other when the terminals are fully mated, as taught in Bellamy. The suggestion or motivation for doing so would have been to minimize the resistance of the connection when the terminals are fully mated, as taught in Bellamy.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hirai et al. discloses an arc suppressive terminal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ross Gushi whose telephone number is (571) 272-2005. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Paula A. Bradley, can be reached at 571-272-2800 extension 33. The phone number for the Group's facsimile is (703) 872-9306.

ROSS GUSHI  
PRIMARY EXAMINER

